

CHAPTER 28

The Evolutionary and Ecological Perspectives of Pierre Teilhard de Chardin and Thomas Berry

Mary Evelyn Tucker and John Grim

Introduction

French Jesuit and paleontologist Pierre Teilhard de Chardin (1881–1955) and passionist priest and cultural historian Thomas Berry (1914–2009) grappled with the critical question of the significance of traditional religions and their cosmologies in light of the scientific story of an evolving universe. Their thought extends into current discussions regarding the relationship of religion and science, religion and evolution, religion and ecology, and environmental humanities.

During the last century many thinkers pondered the relationship between human consciousness and matter. From the standpoint of the empirical sciences, life and consciousness appear as anomalies that arose from the inert matter that composes the known universe. For religious thinkers, consciousness is imaged as extending from the divine realm to the human. Teilhard and Berry took a different approach from either of these predominantly modern scientific or traditional religious positions. They each offered a holistic vision by situating consciousness as integral to the evolving universe. This chapter traces their positions as articulated over the twentieth century.

The Spirit of the Earth

Teilhard proposed that the increasing complexity and consciousness of the evolution of the universe and Earth is manifested in the appearance of self-reflective humans out of this developmental process. However, he asserts that our capacity for self-reflection is not dropped into the process from the outside but emerges from within.

Unwilling to separate matter and spirit, he understood these linked spheres as differentiated yet interrelated dynamics operative within reality. Thus complexity-consciousness, for Teilhard, is an inherent property of matter from the beginning of the universe.

Consequently, the diverse matter of the universe in the process of evolutionary change is ultimately pulled forward by the unifying dynamics of spirit. This eventually becomes “the spirit of the Earth,” where the quantum of matter successively evolves into the spheres encircling the planet: the lithosphere of rock, the hydrosphere of water, and the biosphere of life. This “spirit of the Earth” subsequently evolves into the consciousness humankind now displays in the thought sphere or noosphere surrounding the globe.

Teilhard dedicated his life-work to fostering an active realization by humans of their evolutionary roles in relation to matter-spirit. This he framed as the challenge of seeing. To assist this Teilhard articulated a phenomenology of the involution of matter, a metaphysics of union with spirit, and a mysticism of centration of persons (Teilhard, 1974, 205). We explore these areas as Teilhard defined them and then discuss some of the contributions and limitations of his thought.

Teilhard’s Life Quest: Seeing

Born in southern France, Teilhard entered the Jesuit religious order where he was encouraged to study paleontology. He spent two decades in China doing paleontological work and traveled to Africa, India, and Indonesia in search of fossil evidence. It is not surprising that these studies brought him to question the Genesis Creation story. The challenge, as Teilhard saw it, was to bring Christianity and evolution into dialogue with one another. The path to this rapport was first to awaken to the deep dimensions of time that evolution opens up: “For our age, to have become conscious of evolution means something very different from and much more than having discovered one further fact ... It means (as happens with a child when he acquires the sense of perspective) that we have become alive to a new dimension” (Teilhard, 1968a, 193).

Teilhard struggled to extend contemporary science beyond an analytical, demystifying investigation of the world toward a means of seeing the spiritual dimensions of space and time in the evolutionary process. For Teilhard evolution was a unific movement. Thus, he identified the perceived separation of matter and spirit as a central problem in comprehending the unity of evolution. This was evident, he observed, in mechanistic, Cartesian science that viewed matter as dead and inert. Moreover, a split was also evident in dualistic religious worldviews that saw God as transcendent and apart from created matter. He sought to unite his scientific affirmation of the world of matter with his faith in the Divine. In one of his most striking statements, Teilhard presents his personal belief that proclaims his faith in the world:

If, as the result of some interior revolution, I were to lose in succession my faith in Christ, my faith in a personal God, and my faith in spirit, I feel that I should continue to believe invincibly in the world. The world (its value, its infallibility and its goodness)—that, when all is said and done, is the first, the last, and the only thing in which I believe. It is by this faith that I live. (Teilhard, 1971b, 99)

As Henri de Lubac noted, Teilhard is addressing secular scientists here (de Lubac 1967, 129–143). However, Teilhard also argued that the scientific investigation of evolution would actually lead to a profound sense of the cosmic Christ in the universe. Teilhard saw evolution as drawing toward a greater personalization and deepening of the spirit. He coined the term “christic” as an expression of his experience of the cosmic Christ of evolution: the “omnipresence of transformation” in evolution centered in complexity-consciousness that draws matter forward (Teilhard, 1979, 94).

As evolutionary science since Darwin has observed, the universe is cosmogenesis, namely, a state of continual development over time. This is in stark contrast to two major cosmological positions in Western religion and philosophy—the one-time creation of all existence as presented in Genesis; and the degeneration from a once perfected cosmos as in classical neo-Platonism. Evolution displays dynamic, self-organizing processes from small-scale atomic structures to large-scale galactic structures. Thus, a new cosmology was emerging in the twentieth century, which described the emergence of galaxies and solar systems and eventually the rise of the first cells that evolved into multicellular organisms and complex life-forms. This is the process over which Teilhard puzzled when he noted that with greater complexity of life comes greater consciousness until self-reflection emerges in humans.

Phenomenology: The Significance of Complexity-Consciousness

Teilhard presents his fullest telling of the story of evolutionary processes in *The Human Phenomenon*, completed in 1940. This comprehensive synthesis first appeared in English in 1959 and an updated translation was published 40 years later, in 1999. Here, and throughout his writings, Teilhard describes evolution as both a physical and psychic process; matter has its within and its without. His justification for such a view of inwardness lies in inductive observation. In this sense, human consciousness is not situated as an aberration or addendum, but as arising from the evolutionary process:

Indisputably, deep within ourselves, through a rent or tear, an “interior” appears at the heart of beings. This is enough to establish the existence of this interior in some degree or other everywhere forever in Nature. Since the stuff of the universe has an internal face at one point in itself, its structure is necessarily bifacial; that is, in every region of time and space, as well, for example, as being granular, coextensive with its outside, everything has an inside. (Teilhard, 1999, 24)

Teilhard describes two kinds of energy as involved in evolution, namely, the tangential and the radial. Tangential energy is “that which links an element with all others of the same order as itself in the universe.” Radial energy is that which draws the element “toward ever greater complexity and centricity in other words, forwards” (Teilhard, 1999,

30). Teilhard observes that there are self-organizing principles or tendencies evident in matter that result in more intricate systems:

Left long enough to itself, under the prolonged and universal play of chance, matter manifests the property of arranging itself in more and more complex groupings and at the same time, in ever deepening layers of consciousness; this double and combined movement of physical unfolding and psychic interiorisation (or centration) once started, continuing, accelerating and growing to its utmost extent. (Teilhard, 1965, 139)

The thresholds of the evolutionary process as outlined by Teilhard are first, cosmogenesis in the sense of origin, namely, the emergence of the atomic and inorganic world; second, biogenesis in which organic life appears; and third, anthropogenesis marked by an increase in cephalization (the development of a more complex nervous system) and cerebation (a more complex brain). This third phase implies the birth of thought in humans and, for the first time, evolution is able to reflect on itself. Humans become heirs of the evolutionary process capable of determining its further progression or retrogression. This is an awesome responsibility and much of Teilhard's later work explicates how humans can most effectively participate in the creativity of evolutionary processes.

Teilhard summarizes the implications of his phenomenology for human action as follows:

The essential phenomenon in the material world is life (because life is interiorized).

The essential phenomenon in the living world is the human (because humans are reflective)...

The essential phenomenon of humans is gradual totalization of humankind (in which individuals super-reflect upon themselves). (Teilhard, 1975, 175)

Teilhard realized that the collective human consciousness emerging in the noosphere has enormous potential for creating a planetary community, such as we are witnessing today. Thus, Teilhard saw a need for increased unification, centration, and spiritualization. By unification, he meant the need to overcome the divisive limits of political, economic, and cultural boundaries. By centration, he meant the intensification of reflexive consciousness, namely, a knowing embrace of our place in the unfolding universe. By spiritualization he meant an increase in the intensifying impulse of evolutionary processes that create a zest for life in the human. In all of this he saw the vital importance of the activation of human energy so as to participate more fully in the creative dynamics of evolution. Human creativity, for Teilhard, derives from a passionate dedication to meaningful work and productive research informed by the renewing dimensions of the arts and cultural life.

As humans currently make themselves felt in every part of the globe the challenge now is to enter appropriately into the planetary dimensions of the universe story. As Thomas Berry has suggested in drawing Teilhard's thought forward, this requires new ecological and social roles for the human—roles that enhance

human–Earth relations rather than contribute to the deterioration of the life-systems of the planet (Berry, 2003a, 77–80). Because humans are increasingly taking over the biological factors that determine their growth as a species, they are capable of modifying or creating themselves. The full range of ethical issues in such a progress-oriented view of human cultural evolution were not considered by Teilhard. His contributions, however, do lead to a greater realization that as we become a planetary species by our physical presence and environmental impact, we need also to become a planetary species by our expansion of comprehensive compassion to all life-forms.

Metaphysics: The Dynamics of Union

Teilhard realized that his speculations regarding the inherent nature of the universe were preliminary (Teilhard, 1975, 192). Yet, what he sought was a “universe-of-thought” that would increasingly build toward a unified center of coherence and convergence. Thought, as a form of animated movement, carries forth complexity-consciousness.

Such an animating and alluring center, Teilhard recognized, may not be directly apprehensible to humans, but its existence can be postulated from three points. First, the irreversibility of the evolutionary process—once put into motion, it cannot be halted. Furthermore, there must be a supreme focus toward which all is moving, or else a collapse would occur. Second, polarity. This implies that a movement forward necessitates a stabilizing center influencing the heart of the evolutionary vortex. This center is independent but active enough to cause a complex centering of the various cosmic layers. Third, unanimity. Here, he suggests that there exists an energy of sympathy or love that draws things together, center to center. However, the existence of such a love would be lost if focused on an impersonal collective. Thus, there must exist a personalizing focus: “If love is to be born and to become firmly established, it must have an individualized heart and an individualized face” (Teilhard, 1975, 187).

Teilhard calls this the “metaphysics of union” for he claims that the most primordial notion of being suggests a union (Teilhard, 1975, 193). He describes the active form of being as uniting oneself or uniting with others in friendship, marriage, or collaboration. The passive form he sees as the state of being united, or unified by, another. “To create is to unite,” thus by the very act of Creation the Divine becomes immersed in the multiple. This implies for a Christian that the scope of the Incarnation extends through all Creation. Teilhard regards his metaphysics as being linked with the essential Christian mysteries, such as the Trinity. That is, “There is no God without creature union. There is no creation without incarnational immersion. There is no incarnation without redemption” (Teilhard, 1975, 198). Interestingly, Teilhard presents here a formidable challenge to the traditional anthropocentric Christian emphasis on redemption exclusively for humans by extending redemption into the cosmological context.

Mysticism: The Centering of Person in Evolution

Traditional mysticism in the world's religions is often understood as an interior experience that demands a de-materialization and a transcendent leap into the Divine. Teilhard, however, realized a radical re-conceptualization of the mystical journey as an entry into evolution, discovering there an immanent sense of the Divine.

As a stretcher-bearer during World War I, he had intuited this inherent direction when he wrote, "There is a communion with God, and a communion with the Earth, and a communion with God through the Earth" (Teilhard, 1968b, 14). Eventually, Teilhard came to realize that human participation in this communion led into the depths of mystery. The process of communion is for Teilhard the centration and convergence of cosmic, planetary, and divine energies in the human. We are centered in the whole, which, for Teilhard, is the divine milieu within which we live, breathe, and have our becoming. Thus, Teilhard sees the mysticism that is needed for the future as the synthesis of two powerful currents—evolution and human love. To love evolution is to be involved in a process in which one's particular love is universalized, becomes dynamic, and is synthesized.

This view embodies not simply an anthropocentric or human-centered love, but a love for the world at large. Teilhard's mysticism is activated, for example, in scientific investigation and social commitment to research, as well as in a comprehensive compassion for all life. Mysticism is something other than simply passively enjoying the fruits of contemplation of a transcendent or abstract divinity. For Teilhard, love is always synthesized in the personal. Here lies the point of convergence of the world for Teilhard, the center in which all spiritual energy lies. By means of this personalizing force at the heart of the universe and of the individual, all human activities become an expression of love. It is in this sense Teilhard conjectures that, "every activity is amorized" (Teilhard, 1968a, 171).

Contributions and Limitations in Teilhard's Thought

Teilhard's legacy includes a vastly deepened sense of an evolutionary universe that can be understood as not simply a cosmos but a cosmogenesis. This dynamic emergent universe can now be viewed as one that is intricately connected, both unified and diversified (Swimme & Tucker, 2011). This interconnectivity changes forever the role of the human. We can no longer see ourselves as an addendum or something "created" that is apart from the whole. We are, rather, that being in whom the universe reflects back on itself in conscious self-awareness. The deepening of interiority in the mind and heart gives us cause for celebration and participation in the all-embracing processes of universe emergence. The implications for a greatly enlarged planetary consciousness and commitment to ecological awareness are clear.

Such a perspective leads to a subtle but pervasive sense for Teilhard that the universe is threaded throughout with mystery and meaning. This is in distinct contrast with those who would suggest (often dogmatically) that the universe is essentially meaningless, that evolution is a random process, and that human emergence is a result of pure chance; it is in contrast too with the beliefs of advocates of creationism

and their proposals for Intelligent Design. Teilhard would not describe the evolving universe as coming into existence due to Intelligent Design. Rather, evolution for him is dependent on an intricate blending of the forces of natural selection and chance mutation, on the one hand, and increasing complexity and consciousness, on the other. This does not lead automatically to a teleological universe, but one nonetheless that holds out to the human a larger sense of both purpose and promise.

This promise at the heart of an innately self-organizing evolutionary process is also the lure toward which the process is drawn (Haught, 2002). With this insight Teilhard provides a context for situating human action. This context of hope is indispensable for humans to participate with a larger sense of meaning in society, politics, and economics, as well as in education, research, and the arts. A primary concern for Teilhard is the activation of human energy that results in a zest for life. The existentialist despair that pervaded Europe between the two world wars was something he wished to avoid. For Teilhard, the spirit of the human needed to be brought together with the spirit of the Earth for the flourishing of both humans and the planet.

Thomas Berry identified some limitations in Teilhard's thought along with his contributions (Berry, 2003b, 57–73). Berry observes that Teilhard inherited a modern faith in progress. This accounts for his optimism with regard to humans' ability to "build the Earth" and his emphasis on technological achievements. Teilhard's laudatory reflections on scientific research and technology did not always account for its potential implications for disrupting Earth processes, as when he wrote about the marvels of nuclear power and genetic engineering (Teilhard, 1968a).

Like most people of his time, Teilhard was also limited by his understanding of the world's religions. For example, he discussed Hinduism through the lens of Upanishad/Vedantic monism. This emphasis on one phase of Indian thought did not consider the other, equally significant varieties of philosophical or devotional Hinduism, such as yoga or bhakti. In addition, Teilhard had little textual or anthropological understanding of Confucianism, Daoism, or Chinese Buddhism even though he spent several decades living in China. This is no doubt because so few texts from these traditions had been translated into Western languages. Finally, he had a stereotypical Western view of indigenous traditions as "static and exhausted" (Teilhard, 1971a, 25). Teilhard, on the other hand, privileged Christianity as a major axis of evolution rather than affirming it as his entry into reflection on evolution.

Despite these limitations, what emerges in any consideration of the life and thought of Teilhard is an appreciation of his grace under pressure, his steadfast commitment to a vision that challenged many of his deepest values, and his efforts to align a life of science with his religious journey. He has provided us with one of the few intellectual and affective syntheses that draw on science and religion in such profound and novel ways. His vision of universe emergence and of the role of the human in that emergence stands as one of the lasting testimonies of twentieth-century thought.

Thomas Berry's Life Quest: A New Story

Thomas Berry (1914–2009) was born in Greensboro, North Carolina and attended high school and college at St. Mary's in Maryland. He entered the Passionist Order and received his doctorate from the Catholic University. He eventually taught the history of religions

at St. John's University, Long Island, and then Fordham University in the Bronx. He established the Riverdale Center for Religious Research alongside the Hudson River where he hosted many talks and gatherings for nearly two decades. Berry spent the last 14 years of his life in Greensboro with family and friends. From his studies of world religions he expanded his life quest to articulate an engaging evolutionary narrative, a "new story" that would respond effectively to the overwhelming ecological crisis facing the planet.

To fully understand this quest it is helpful to highlight some of the major intellectual influences on his life and thinking. In this way we can more fully appreciate the nature and significance of evolution seen as a story. Here we first discuss Berry's studies of Western history, Asian traditions, and indigenous religions. We then describe the important influence of Teilhard on Berry's thought. Finally, we outline some of the major features of the new story as Berry has described it.

Berry's Intellectual Journey from Human History to Earth History

It is significant to see Berry's contributions initially as a cultural historian whose interests spanned Europe and Asia. He undertook his graduate studies in Western history and spent several years in Germany after World War II. In addition, he read extensively in the field of Asian religions and history. He lived in China the year before Mao came to power and published two books on Asian religions, *Buddhism* and *Religions of India*. He also studied the traditions of indigenous peoples and met with native peoples in North America and the Philippines.

From this beginning as a cultural and intellectual historian Berry moved to become a historian of the Earth. Berry thus came to describe himself not as a theologian but as a "geologist." The movement from human history to cosmological history was a necessary progression. He witnessed in his own lifetime the emergence of a multicultural planetary civilization as cultures have come in contact around the globe, often for the first time. But he wanted to explore this even further back in Earth history and the evolution of the universe. This is what led to his signature essay in 1978 on "The New Story." Expanding on Teilhard's evolutionary perspective, he moved toward evolution as an epic narrative, one that can inspire human action. Thus, in 1992 he published *The Universe Story* with Brian Swimme.

Historian of Western Intellectual History

Berry began his academic career as a historian of Western history. His thesis at Catholic University on Giambattista Vico's philosophy of history was published in 1951. Vico outlined his philosophy in *The New Science of the Nature of the Nations*, which was first published in 1725 after some 20 years' research. Vico was trying to establish a science of the study of nations comparable to what others had done for the study of Nature. Thus, he hoped to make the study of history more "scientific" by focusing on the world of human institutions and causation.

Vico's thought was seminal for Berry as he developed a constructive critique of our own period. Berry draws on Vico in several respects: the sweeping periodization of

history, the notion of the barbarism of reflection, and the poetic wisdom and creative imagination needed to sustain civilizations. With regard to periodization, Berry defined four major ages in human history: the tribal shamanic, the traditional civilizational, the scientific technological, and the ecological or ecozoic. He observed that we are currently moving into the ecozoic era, which he felt will be characterized by a new understanding of human–Earth relations. Nonetheless, he acknowledged that we are in a period of severe cultural pathology with regard to our blind yet sophisticated technological assault on the Earth. In other words, we are in a time of a “barbarism of reflection,” a period of over-refinement of a civilizational age at the same time as we have lost Earth wisdom.

To extract ourselves from this cultural pathology of alienation from one another and destruction of the Earth, Berry eventually called for a new story of the universe. By evoking such an epic and poetic vision he felt we might be able to create a sustainable future. It took some three decades for him to articulate this vision after being inspired by Vico.

Historian of Asian Thought and Religions

In 1948, after completing his doctorate, Berry set out for China intending to study language and Chinese philosophy. On the boat leaving from San Francisco he met Wm. Theodore de Bary, who later became one of the premier scholars in Asian studies. Their time in China, while fruitful, was cut short by Mao’s Communist victory in 1949. After they returned to the United States they worked together to found the Asian Thought and Religion Seminar at Columbia University. De Bary helped to establish one of the nation’s premier programs in Asian studies at Columbia and they remained friends for 60 years.

Berry began his teaching of Asian religions at Seton Hall (1956–1960) and St. John’s University (1960–1966). He eventually moved to Fordham University (1966–1979) where he founded a graduate program in the history of religions. What was distinctive about Berry’s teaching was his effort not only to discuss the historical unfolding of the traditions being studied, but also to articulate their spiritual dynamics and ecological significance. Well before interreligious dialogue emerged, Berry was studying the texts and traditions of the world’s religions, often in the original languages. During this process, he examined their cosmologies and Creation stories to imagine a more comprehensive and inclusive cosmology for our times.

In this respect, the most seminal Asian tradition for Berry’s thinking was Confucianism. For Berry, Confucianism is significant because of its cosmological concerns, its interest in self-cultivation and education, and its commitment to improving the social and political order. In Confucian cosmology Berry identified the key understanding of the human as a microcosm of the cosmos. Essential to this cosmology is a “continuity of being” and thus a communion between various levels of reality: cosmic, Earth, and human. This is similar to Teilhard’s ideas, as well as those of Alfred North Whitehead and other contemporary process thinkers.

Confucianism remained for Berry a dynamic, vitalistic tradition with important implications for current environmental philosophy. Berry noted, however, that there is a disparity between theory and practice in the case of China. He recognized that China, like many countries, has been responsible for deforestation and desertification over the centuries. Furthermore, the contemporary record of China on the environment remains far from ideal. Nonetheless, he felt the comprehensive cosmological framework of Confucian thought is a valuable intellectual resource in reformulating a contemporary ecological cosmology with implications for environmental ethics. Indeed, this is what is occurring in China today with the effort to formulate an “ecological civilization,” drawing particularly on Confucian perspectives.

Indigenous Religious Traditions

In addition to a remarkable ability to appreciate the diversity and uniqueness of Asian and Western religions, Berry had a lively interest in and empathy for indigenous peoples and their cultural life-ways. He taught courses at both Fordham and Columbia on American Indian religions and published articles on the topic. He encouraged his graduate students to write dissertations in this field; several of these have now been published. Various native groups warmly received him, including tribes on the Northern Plains, the northwest coast, and the Cree and Inuit peoples in northeastern Canada who have struggled against the massive James Bay hydroelectric project. Overseas, he has spent time with the Tboli people in the southern Philippines. He encouraged them to touch lightly into the current industrial-technological period and move more fully into the ecozoic era.

In addition to his own research, writing, and teaching in the field of Native American religions, Berry’s appreciation for native traditions and for the richness of their mythic, symbolic, and ritual life was enhanced by his encounters with the ideas of Carl Jung and Mircea Eliade. Within this larger framework of interpretive categories Berry was able to articulate the special feeling in native traditions for the sacredness of the land, the seasons, and the animal, bird, and fish life. He understood how native peoples respect Creation because they respect the Creator; how they have a deep reverence for the gift of all life and for humans’ dependence on Nature to sustain life. He studied the ancient techniques of shamanism, including ritual fasting and prayer, to call on the powers in Nature for personal healing and communal strength.

Berry recognized that native peoples have cultivated an ability to use resources without abusing them and to recognize the importance of living lightly on the Earth. However, he did not assume that native peoples were the ideal ecologists. As in the Chinese case, abuses certainly have occurred. However, for Berry these two traditions—Confucian and Native American—remained central to the creation of a new cosmological understanding and ecological spirituality for our times. They also have affinities with a sense of the Earth as a dynamic, unfolding force that inspired the new story.

Teilhard's Influence on the New Story

In formulating his idea of a new story Berry was also indebted to the thought of Pierre Teilhard de Chardin. He began reading Teilhard during the 1960s after the publication of *The Phenomenon of Man* in 1959 (republished in 1999 with the title *The Human Phenomenon*). In particular, Berry gained from Teilhard an appreciation for developmental time. As Berry wrote, since the publication of Charles Darwin's *On the Origin of Species* we have become aware of the universe not simply as a static cosmos but as an unfolding cosmogenesis. The theory of evolution provides a distinctive realization of change and development in the universe that resituates us in an encompassing sweep of geological time. For Berry the new story is a primary context for understanding the immensity of cosmogenesis.

From Teilhard, Berry also derived an understanding of the psychic-physical character of the unfolding universe. As we have noted, this implies that if there is consciousness in the human and if humans have evolved from the Earth, then from the beginning some form of consciousness or interiority is present in the process of evolution. Matter for both Teilhard and Berry is not dead or inert, but a numinous reality possessing both a physical and spiritual dimension. Consciousness, then, is an intrinsic part of reality and is the thread that links all life-forms. There are various forms of consciousness and, in the human, self-consciousness or reflective thought arises.

Berry also obtained from Teilhard an appreciation for his law of complexity-consciousness. This suggests that as things evolve from simpler to more complex organisms, so consciousness increases. Ultimately, self-consciousness or reflection emerges in the human order. The human as a highly complex mammal is distinguished by this capacity for reflection. This gives humans a special role in the evolutionary process. We are part of, not apart from, the Earth.

For Teilhard and for Berry, evolution provides the most comprehensive context for understanding the human phenomenon in relation to other life-forms. This implies for Berry that we are one species among others, and as self-reflective beings we need to understand our particular responsibility for the continuation of the evolutionary process. We have reached a juncture where we are realizing that we will determine which species survive and which will become extinct. We have become co-creators as we have become conscious of our role in this extraordinary, irreversible development of the emergence of life-forms. This is what Berry called the Great Work, what humans can do to enhance human-Earth relations.

As we have noted, Berry critiqued Teilhard's over-optimistic view of progress and his apparent lack of concern for the devastating effect that industrial processes were having on fragile ecosystems. He pointed out that Teilhard was heir to a Western mode of thinking which saw the human as capable of controlling the natural world, usually through science and technology.

In addition, Berry noted Teilhard's lack of appreciation for Asian religions despite his long residence and extensive travels in Asia. His attachment to the unique revelation of Christianity is reflective of the Catholic theology of his time, which did not recognize truth in other religions. It may also be explained as the absence of the opportunity for

communication with Chinese scholars of traditional Chinese religions while he resided in Beijing. This may have been due to a language barrier, wartime constraints, or lack of time or interest due to other scholarly commitments.

Berry's approach has been much more inclusive in terms of cultural history and religion, while Teilhard was focused on geology and paleontology. These two approaches came together in Berry's book written with mathematical cosmologist Brian Swimme, *The Universe Story* (1992). Here for the first time is the narration of the story of the evolution of the solar system and the Earth, along with the story of the evolution of the human and of human societies and cultures. While not claiming to be definitive or exhaustive *The Universe Story* presents a model for telling a common Creation story. It marks a new era of self-reflection for humans, one that Berry described as the "ecological age" or the beginning of the "eozoic age." Brian Swimme and Mary Evelyn Tucker extended this perspective in their multimedia project, *Journey of the Universe*, a film, book, and conversation series.

In telling the story of evolution Berry also tried not to keep his language exclusively Christocentric as Teilhard did. His intention was to appeal not only to the Christian community but beyond it too. He was aware of the barriers theological language sometimes creates in the secular world, particularly among environmentalists and people of different faith commitments. He hoped to appeal to a wide variety of individuals who are responsive to the paradigm shift in worldviews that is beginning to take shape in human consciousness. It is a shift that transcends religious or national boundaries and helps to create the common grounds for the emergence of an Earth community.

The Origin and Significance of the New Story

Berry spent some 20 years studying the world's religions starting in 1948, and during the 1960s immersed himself in Teilhard's thought. In the 1970s Berry's ideas on the new story began to take shape as he pondered the magnitude of the social, political, and economic problems the human community was facing. Berry saw this as a comprehensive basis for nurturing reciprocity between humans and for fostering reverence in humans for the Earth in a period of increasing assault on the Earth's ecosystems.

The idea of a new story or a functional cosmology, then, arose not as an abstract idea, but as a response to the sufferings of humans in a universe where they saw themselves as deeply alienated. This alienation was, no doubt, a particular experience of the West during the postwar years as expressed in existentialist philosophy, the death of God theology, and the theater of the absurd. Nonetheless, the spirit of disaffection, ennui, and alienation spread to other parts of the world in the wake of Western cultural influences and the rise of unfettered materialism. Berry's new story provided an important antidote to disillusionment and despair, especially regarding our destruction of the environment. It created, above all, a new context for connection, for purpose, for action because it provided a comprehensive perspective for activating the human energy needed for positive social, political, and economic change.

Berry first published the "New Story" (subtitled "Comments on the Origin, Identification and Transmission of Values") in 1978 as the initial essay of the *Teilhard*

Studies series. It was republished nearly a decade later in the journal *Cross Currents* and revised for publication in *The Dream of the Earth* in 1988.

From Old Story to New Story

Berry opens his essay by observing: "We are in between stories." He notes how the old story was functional because "It shaped our emotional attitudes, provided us with life purpose, energized action. It consecrated suffering and integrated knowledge" (Berry, 2003a, 77). The context of meaning provided by the old story is no longer relevant. People are turning to New Age solipsism, technological utopias, or religious fundamentalism for their orientation. However, for Berry none of these directions could ultimately be satisfying. He recognized dysfunctionality in both religious and scientific communities and proposed a new story of how things came to be, where we are now, and how the human future can be given meaningful direction. In losing our direction we have lost our values and orientation. This is what he felt the new story could provide, bringing science and the humanities back together.

The Historical Split between Religious and Scientific Communities

Berry cites the Black Death of the fourteenth and fifteenth centuries as a watershed moment in Western thought when religion and science began to divide. On the one hand, there arose the religious redemption community, while on the other, there emerged the scientific secular community. The religious community embraced redemption out of this world, while the scientific community fostered empirical study of an objectified world.

With the spread of the Black Death in Europe the need arose to have the intervention of supernatural forces to mitigate the awesome power of death. Because of the vast numbers of people who died, Christianity held to a strong redemption-oriented theology. To be redeemed and saved out of this world of suffering was the hope held up for all believers. To be assisted in this redemption from suffering by the power of Christ's suffering and death was the aim of the Christian message.

As Berry observed, something was lost in this exclusive focus on redemption. Creation theology was subsumed in redemption soteriology: "The primary doctrine of the Christian creed, belief in a personal creative principle, became increasingly less important in its functional role. Cosmology was not of any particular significance." Berry (2003a, 78) claims that the Christian story lost its cosmological import.

Increasingly, scientific secular communities sought to remedy the terror of natural events by studying the processes of the Earth itself rather than seeking supernatural intervention. The heavens and the Earth were studied with the aid of the telescope and microscope. Scientific empiricism was paralleled by the eighteenth-century Enlightenment philosophers' celebration of Reason and the sociologists' articulation of progress in human societies. The biological understanding of developmental time, which began in the nineteenth century, was a significant addition to this. In the twentieth century it was enhanced by astrophysicists' explorations of the expanding universe.

The divide between science and religion has remained strong to the present day. In fact, in our own time the split between the religious creationists and the scientific evolutionists has been quite heated. On the other hand, a new dialogue is also emerging between science and religion, which is attempting to overcome the dichotomy that was exacerbated by the Copernican and Darwinian revolutions.

Earth Unfolding in Space and Time: Cosmogenesis

Copernicus's discoveries changed our sense of human spatial orientation in the universe. No longer was the Earth considered the center of reality. In a similar manner, the Darwinian revolution altered our sense of time. Human consciousness is awakening to the realization that the Earth is part of an irreversible developmental sequence of time. Life has evolved from less complex to more complex forms. In other words, "the Earth in all its parts, especially in its life forms, was in a state of continuing transformation" (Berry, 2003a, 80). This is a key implication of the new story. We live not simply in a cosmos but in a cosmogenesis. This reflects the influence of Teilhard on Berry's thinking. However, developmental time is still being absorbed by the human community while being resisted by Christian creationists.

Subjectivity

A radical new realization of the subjective communion of the human with the Earth is now beginning to be understood. As Berry expresses it, "The human being emerges not only as an earthling, but also as a worldling. Human persons bear the universe in their being as the universe bears them in its being. The two have a total presence to each other" (2003a, 78). This subjective presence of things to one another is one of the most distinctive features of Berry's thought and reflects Teilhard's influence. In *The Divine Milieu* Teilhard writes of this interior attraction of things: "In the Divine Milieu all the elements of the universe touch each other by that which is most inward and ultimate in them" (1960, 92). Berry has suggested that the importance of the awareness of the subjective dimension of the universe story cannot be underestimated. Indeed, he writes: "the reality and value of the interior subjective numinous aspect of the entire cosmic order are being appreciated as the basic condition in which the story makes any sense at all" (Berry, 2003a, 86).

Values: Differentiation, Subjectivity, Communion

Berry states that to communicate values in this new frame of the Earth story requires identifying the basic principles of the universe process itself. For Berry these are the primordial tendencies of the universe toward differentiation, subjectivity, and communion. Differentiation refers to the extraordinary variety and distinctiveness of everything in the universe. No two things are completely alike. Subjectivity is the interior

numinous component present in all reality, also called consciousness. Communion is the ability to relate to other people and things due to the presence of subjectivity and difference. They create the grounds for the inner attraction of things for one another. Berry felt these three principles could become the basis of a more comprehensive ecological and social ethics that understands how the human community is dependent on and interactive with the Earth community.

Confidence in the Future

For Berry such a perspective is crucial for the survival of both humans and the Earth. As he has stated, humans and the Earth will go into the future as a single, multiform event or we will not go into the future at all. Berry closes "The New Story" with a powerful passage evoking his confidence in the future despite the tragedies of the present:

If the dynamics of the universe from the beginning shaped the course of the heavens, lighted the sun and formed the Earth, if this same dynamism brought forth the continents and seas and atmosphere, if it awakened life in the primordial cell and then brought into being the unnumbered variety of living beings, and finally brought us into being and guided us safely through the turbulent centuries, there is reason to believe that this same guiding process is precisely what has awakened in us our present understanding of ourselves and our relation to this stupendous process. Sensitized to such guidance from the very structure and functioning of the universe, we can have confidence in the future that awaits the human venture. (Berry, 2003a, 88)

This is Berry's life-journey, born of his intellectual formation as a cultural historian of the West, turning toward Asian religions, examining indigenous traditions, and finally culminating in the study of the scientific story of the universe itself. It is a story of personal evolution against the background of cosmic evolution. It is the story of one person's intellectual history in relation to Earth history. It is the story of all our histories in conjunction with planetary history. As Berry noted it, is a story awaiting multiple tellings and an ever-deeper confidence in the beauty and mystery of its unfolding.

Conclusion

It is out of these kinds of concern for the future direction of human–Earth relations that Teilhard wrote *The Human Phenomenon* and Berry developed the "New Story." Both Teilhard's and Berry's aim was to evoke the psychic and spiritual resources to establish a reciprocity of humans with Earth and of humans with one another. They believed that with a comprehensive perspective regarding our place in this extraordinary unfolding of the universe and Earth history there would emerge a renewed awareness of our relation to and responsibility in evolutionary processes at this crucial point in history.

References

- Berry, Thomas. 2003a. The New Story (77–88). In Arthur Fabel & Donald St John (Eds.), *Teilhard in the 21st Century*. Maryknoll, NY: Orbis Books.
- Berry, Thomas. 2003b. Teilhard in the Ecological Age (57–73). In Arthur Fabel & Donald St John (Eds.), *Teilhard in the 21st Century*. Maryknoll, NY: Orbis Books.
- Berry, Thomas. 2015. *The Dream of the Earth*. Berkeley, CA: Counterpoint. (Originally published by Sierra Club Books, 1988.)
- de Lubac, Henri. 1967. *Teilhard de Chardin: The Man and His Meaning*. New York: New American Library.
- Haight, John. 2002. In Search of a God of Evolution: Paul Tillich and Pierre Teilhard de Chardin. *Teilhard Studies*, 45. American Teilhard Association.
- Swimme, Brian & Berry, Thomas. 1992. *The Universe Story*. San Francisco, CA: Harper.
- Swimme, Brian Thomas & Tucker, Mary Evelyn. 2011. *Journey of the Universe*. New Haven, CT: Yale University Press.
- Teilhard de Chardin, Pierre. 1960. *The Divine Milieu*. New York: Harper & Row.
- Teilhard de Chardin, Pierre. 1965. *The Appearance of Man*. New York: Harper & Row.
- Teilhard de Chardin, Pierre. 1968a. *Science and Christ*. New York: Harper & Row.
- Teilhard de Chardin, Pierre. 1968b. *Writings in Time of War*. New York: Harper & Row.
- Teilhard de Chardin, Pierre. 1971a. *Human Energy*. New York: Harcourt Brace Jovanovich.
- Teilhard de Chardin, Pierre. 1971b. *How I Believe. Christianity and Evolution*. New York: Harcourt Brace Jovanovich.
- Teilhard de Chardin, Pierre. 1975. *My Fundamental Vision. Toward the Future*. New York: Harcourt Brace Jovanovich.
- Teilhard de Chardin, Pierre. 1979. *The Christic. The Heart of Matter*. New York: Harcourt Brace Jovanovich.
- Teilhard de Chardin, Pierre. 1999. *The Human Phenomenon*. New transl. Sarah Appleton Weber. Bristol: Sussex Academic Press. (Originally titled *The Phenomenon of Man*.)

Further Reading

- Berry, Thomas. 1999. *The Great Work*. New York: Random House.
- Berry, Thomas. 2006. *Evening Thoughts: Reflecting on Earth as Sacred Community*. Ed. Mary Evelyn Tucker. San Francisco, CA: Sierra Club Books.
- Berry, Thomas. 2009. *The Christian Future and the Fate of Earth*. Eds. Mary Evelyn Tucker & John Grim. Maryknoll, NY: Orbis Books.
- Berry, Thomas. 2009. *The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-First Century*. Ed. Mary Evelyn Tucker. New York: Columbia University Press.
- Berry, Thomas. 2014. *Selected Writings on the Earth Community*. Eds. Mary Evelyn Tucker & John Grim. Maryknoll, NY: Orbis Books.
- Eaton, Heather. 2014. *The Intellectual Journey of Thomas Berry*. Lanham, MD: Lexington Press.
- Teilhard de Chardin, Pierre. 1979. *Let Me Explain*. New York: Harper & Row.